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## **ABSTRACT**

A ball bat includes a barrel having a substantially cylindrical outer wall including a first material located radially outwardly from a neutral axis of the outer wall, and a second material located radially inwardly from the neutral axis of the outer wall. The barrel further includes a substantially cylindrical inner wall located within the outer wall and including a third material located radially outwardly from a neutral axis of the inner wall, and a fourth material located radially inwardly from the neutral axis of the inner wall. The first and third materials each have a specific energy storage in compression of at least 2000 psi, and the second and fourth materials each have a tensile modulus of at least 18 million psi. The ball bat exhibits excellent performance and durability characteristics.